

RS - INT  
REGENERATION  
Planting  
Direct Seeding

June 23, 1939

NOTES ON DIRECT SEEDING PLOTS - SECOND INSPECTION

Granit Cr. Flat

"S C" at second examination indicates crushing by cattle rather than snow. Have been both cattle and sheep on plot; not many sheep.

Pine Creek North

Some cattle trampling, but no material damaged.  
Sloughing of loose soil continues.

Pine Creek Draw

Few cattle have been in plot recently but no direct damage. Several windfalls since last examination; have smashed or covered some spots in lower part of plot. Soil moisture sufficient at all test spots for survival (below 3" depth).

Pine Creek South

Recent cattle trampling severe (have probably trampled on or close to 1/3 of spots) but actual kill by this cause light - many screens knocked off but either seedling still OK or previously killed by other cause. Small screens held by pins were less out of place than others, but were not immune from rodent work, as were raised on one edge or burrowed under in many cases. Soil moisture variable but probably critical on most of plot before recent rains. Now OK in most spots below 10 or 12" depth, except under large green trees and few spots elsewhere where dry deep. Moist nearer surface on most of prepared spots, especially on "large" scalps - sometimes within 2" of surface. Insect work notable - see record.

Station Area - South

Considerable disturbance of small cones and destruction by rodents noted this time in comparison with last; only few of large cones entered.

Cause of death noted as "Um" on this plot probably includes many cases of consumption by cutworms or other insects (which were specifically noted under several cones) but where no evidence remained. It is possible that some D, H, or F losses were also included as the seedling remains were so small and dried and in some cases disturbed that they may not have been visible. In exposed spots the losses were undoubtedly all or mostly due to rodents, except as noted.

Soil moisture is apparently sufficient to prevent drought losses at nearly all points on plot (unprepared as well as scalped spots), but only as results of last rains. Probably many "D" losses are actually from drought before rain.

### General

The symbol "Um" (unknown-missing) was used at this examination to indicate cases where no trace of seedlings remains. Where spot is unprotected or had screen off, such losses may usually be ascribed to R C, and even where screen apparently in place but many rodent losses nearby, this may have been the cause. Where only partial losses in an undisturbed screen, "Um" losses are probably from insects, or possibly D, F, or H kill where remnants were not visible.

Dried seedlings were so thoroughly dried that it was generally impossible to distinguish true D, H, or F losses; thus for this examination "D" includes all three and possibly a negligible number of cases of root insect or other such causes; that is, "D" here means "dried" but not necessarily drought. The recent rains have made the soil testing of little significance in this respect. It is believed (but not known) that a substantial proportion of "D" losses on south slopes were true drought kill - contrary to the usual condition this early in the year, when dried seedlings may be charged chiefly to H or F. (Contrary to instructions, Barroclough's record for large screens on Pine Creek - South indicates all dried seedlings as "H" losses - may be D, H, or F.)

It was observed in a small number of instances that one or two seedlings in the midst of a clump of dead ones survived and appeared healthy. This may be simply "survival of the fittest", but there was a suggestion of the favorable effect of shading the stems of the central seedlings from heat kill - a possible beneficial result of growth in clumps that has not been noted before. It is of minor practical importance even if true.

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